

# SEQUENCE LISTING

<110> Harvell, Leslie T.  
Ragghianti, James J

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<130> BB1470 US NA

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<150> 60/244,272

<151> 2000-10-30

<160> 13

<170> Microsoft Office 97

<210> 1

<211> 1493

<212> DNA

<213> Zea mays

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<210> 2

<211> 371

<212> PRT

<213> Zea mays

<400> 2

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Ser	Leu	Cys	Leu	Ser	Ser	Arg	Asn	Arg	Val	His	Leu	Ala	Ala	Ala	Ser	20	25	30
Lys	Arg	Asp	Gln	Met	Ala	Pro	Leu	Gly	Asp	Gly	Gly	Ala	Ala	Ala	Ala	35	40	45
Ala	Ala	Ser	Asn	Asn	Leu	Val	Val	Ser	Phe	Gly	Glu	Met	Leu	Ile	Asp	50	55	60
Phe	Val	Pro	Asp	Val	Ala	Gly	Leu	Ser	Leu	Ala	Glu	Ser	Gly	Gly	Phe	65	70	75
Val	Lys	Ala	Pro	Gly	Gly	Ala	Pro	Ala	Asn	Val	Ala	Cys	Ala	Ile	Ala	85	90	95
Lys	Leu	Gly	Gly	Ser	Ser	Ala	Phe	Val	Gly	Lys	Phe	Gly	Asp	Asp	Glu	100	105	110
Phe	Gly	His	Met	Leu	Val	Asn	Ile	Leu	Lys	Gln	Asn	Asn	Val	Asn	Ser	115	120	125
Glu	Gly	Cys	Leu	Phe	Asp	Lys	His	Ala	Arg	Thr	Ala	Leu	Ala	Phe	Val	130	135	140
Thr	Leu	Lys	His	Asp	Gly	Glu	Arg	Glu	Phe	Met	Phe	Tyr	Arg	Asn	Pro	145	150	155
Ser	Ala	Asp	Met	Leu	Leu	Thr	Glu	Ala	Glu	Leu	Asp	Leu	Gly	Leu	Val	165	170	175
Arg	Arg	Ala	Lys	Val	Phe	His	Tyr	Gly	Ser	Ile	Ser	Leu	Ile	Ser	Glu	180	185	190
Pro	Cys	Arg	Ser	Ala	His	Met	Ala	Ala	Met	Arg	Ala	Ala	Lys	Ala	Ala	195	200	205
Gly	Val	Leu	Cys	Ser	Tyr	Asp	Pro	Asn	Val	Arg	Leu	Pro	Leu	Trp	Pro	210	215	220
Ser	Pro	Asp	Ala	Ala	Arg	Glu	Gly	Ile	Leu	Ser	Ile	Trp	Lys	Glu	Ala	225	230	235
Asp	Phe	Ile	Lys	Val	Ser	Asp	Asp	Glu	Val	Ala	Phe	Leu	Thr	Arg	Gly	245	250	255
Asp	Ala	Asn	Asp	Glu	Lys	Asn	Val	Leu	Ser	Leu	Trp	Phe	Asp	Gly	Leu	260	265	270
Lys	Leu	Leu	Val	Val	Thr	Asp	Gly	Asp	Lys	Gly	Cys	Arg	Tyr	Phe	Thr	275	280	285
Lys	Asp	Phe	Lys	Gly	Ser	Val	Pro	Gly	Phe	Lys	Val	Asp	Thr	Val	Asp	290	295	300
Thr	Thr	Gly	Ala	Gly	Asp	Ala	Phe	Val	Gly	Ser	Leu	Leu	Val	Asn	Val	305	310	315
Ala	Lys	Asp	Asp	Ser	Ile	Phe	His	Asn	Glu	Glu	Lys	Leu	Arg	Glu	Ala	325	330	335

Leu Lys Phe Ser Asn Ala Cys Gly Ala Ile Cys Thr Thr Lys Lys Gly  
 340 345 350

Ala Ile Pro Ala Leu Pro Thr Val Ala Thr Ala Gln Asp Leu Ile Ala  
 355 360 365

Lys Ala Asn  
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<210> 3  
 <211> 430  
 <212> DNA  
 <213> Zea mays

<220>  
 <221> unsure  
 <222> (293)  
 <223> n = A, C, G or T

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 cggcgagcgc gagttcatgt tctaccgcaa ccccgagcgc gacatgctcc tcaactgccga 180  
 cgagctcaac gtcgggctca tccggagggc tgcggtcttt cactacggat caataagctt 240  
 gattgctgag ccttgccgga cagcacatct ccgtgccatg gaaattgcc aanaaggctgg 300  
 tgcaactgctc tcttacgacc caaacctgag ggaggcactt tggccatccc gtgaggaggc 360  
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<210> 4  
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 <212> PRT  
 <213> Zea mays

<220>  
 <221> UNSURE  
 <222> (72)  
 <223> Xaa = ANY AMINO ACID

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Arg Glu Phe Met Phe Tyr Arg Asn Pro Ser Ala Asp Met Leu Leu Thr  
 20 25 30

Ala Asp Glu Leu Asn Val Gly Leu Ile Arg Arg Ala Ala Val Phe His  
 35 40 45

Tyr Gly Ser Ile Ser Leu Ile Ala Glu Pro Cys Arg Thr Ala His Leu  
 50 55 60

Arg Ala Met Glu Ile Ala Lys Xaa Ala Gly Ala Leu Leu Ser Tyr Asp  
 65 70 75 80

Pro Asn Leu Arg Glu Ala Leu Trp Pro Ser Arg Glu Glu Ala Arg Thr  
 85 90 95

Gln Ile Leu Ser Ile  
100

<210> 5  
<211> 1553  
<212> DNA  
<213> Oryza sativa

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cgcgcgcgag caggggtggtt gttgttggtg ggggtgcaat ggcggggagg agcgagctgg 240  
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<210> 6  
<211> 368  
<212> PRT  
<213> Oryza sativa

<400> 6  
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Ala Arg Ala Ser Arg Val Val Val Val Gly Gly Gly Ala Met Ala Gly  
35 40 45  
Arg Ser Glu Leu Val Val Ser Phe Gly Glu Met Leu Ile Asp Phe Val  
50 55 60  
Pro Thr Val Ala Gly Val Ser Leu Ala Glu Ala Pro Ala Phe Val Lys  
65 70 75 80

1005001 = 20540001

Ala Pro Gly Gly Ala Pro Ala Asn Val Ala Ile Ala Val Ala Arg Leu  
85 90 95

Gly Gly Gly Ala Ala Phe Val Gly Lys Leu Gly Asp Asp Glu Phe Gly  
100 105 110

Arg Met Leu Ala Ala Ile Leu Arg Asp Asn Gly Val Asp Asp Gly Gly  
115 120 125

Val Val Phe Asp Ala Gly Ala Arg Thr Ala Leu Ala Phe Val Thr Leu  
130 135 140

Arg Ala Asp Gly Glu Arg Glu Phe Met Phe Tyr Arg Asn Pro Ser Ala  
145 150 155 160

Asp Met Leu Leu Thr His Ala Glu Leu Asn Val Glu Leu Ile Lys Arg  
165 170 175

Ala Ala Val Phe His Tyr Gly Ser Ile Ser Leu Ile Ala Glu Pro Cys  
180 185 190

Arg Ser Ala His Leu Arg Ala Met Glu Ile Ala Lys Glu Ala Gly Ala  
195 200 205

Leu Leu Ser Tyr Asp Pro Asn Leu Arg Glu Ala Leu Trp Pro Ser Arg  
210 215 220

Glu Glu Ala Arg Thr Lys Ile Leu Ser Ile Trp Asp Gln Ala Asp Ile  
225 230 235 240

Val Lys Val Ser Glu Val Glu Leu Glu Phe Leu Thr Gly Ile Asp Ser  
245 250 255

Val Glu Asp Asp Val Val Met Lys Leu Trp Arg Pro Thr Met Lys Leu  
260 265 270

Leu Leu Val Thr Leu Gly Asp Gln Gly Cys Lys Tyr Tyr Ala Arg Asp  
275 280 285

Phe Arg Gly Ala Val Pro Ser Tyr Lys Val Gln Gln Val Asp Thr Thr  
290 295 300

Gly Ala Gly Asp Ala Phe Val Gly Ala Leu Leu Arg Arg Ile Val Gln  
305 310 315 320

Asp Pro Ser Ser Leu Gln Asp Gln Lys Lys Leu Glu Glu Ala Ile Lys  
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Phe Ala Asn Ala Cys Gly Ala Ile Thr Ala Thr Lys Lys Gly Ala Ile  
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Pro Ser Leu Pro Thr Glu Val Glu Val Leu Lys Leu Met Glu Ser Ala  
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<210> 7  
<211> 1310  
<212> DNA  
<213> Glycine max

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<400> 7
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<210> 8
<211> 354
<212> PRT
<213> Glycine max

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Pro Asn Thr Leu Ser Leu Pro Met Ala Leu Asn Asn Gly Val Pro Ala
          20             25             30

Thr Gly Thr Gly Leu Ile Val Ser Phe Gly Glu Met Leu Ile Asp Phe
 35             40             45

Val Pro Thr Val Ser Gly Val Ser Leu Ala Glu Ala Pro Gly Phe Leu
 50             55             60

Lys Ala Pro Gly Gly Ala Pro Ala Asn Val Ala Ile Ala Val Ser Arg
 65             70             75             80

Leu Gly Gly Lys Ala Ala Phe Val Gly Lys Leu Gly Asp Asp Glu Phe
          85             90             95

Gly His Met Leu Ala Gly Ile Leu Lys Glu Asn Gly Val Arg Ala Asp
          100            105            110

Gly Ile Asn Phe Asp Gln Gly Ala Arg Thr Ala Leu Ala Phe Val Thr
          115            120            125

Leu Arg Ala Asp Gly Glu Arg Glu Phe Met Phe Tyr Arg Asn Pro Ser
          130            135            140

Ala Asp Met Leu Leu Lys Pro Glu Glu Leu Asn Leu Glu Leu Ile Arg
          145            150            155            160

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Ser Ala Lys Val Phe His Tyr Gly Ser Ile Ser Leu Ile Val Glu Pro  
165 170 175

Cys Arg Ser Ala His Leu Lys Ala Met Glu Val Ala Lys Glu Ser Gly  
180 185 190

Cys Leu Leu Ser Tyr Asp Pro Asn Leu Arg Leu Pro Leu Trp Pro Ser  
195 200 205

Ala Glu Glu Ala Arg Lys Gln Ile Leu Ser Ile Trp Glu Lys Ala Asp  
210 215 220

Leu Ile Lys Val Ser Asp Ala Glu Leu Glu Phe Leu Thr Gly Ser Asp  
225 230 235 240

Lys Ile Asp Asp Glu Ser Ala Leu Ser Leu Trp His Pro Asn Leu Lys  
245 250 255

Leu Leu Leu Val Thr Leu Gly Glu His Gly Ser Arg Tyr Tyr Thr Lys  
260 265 270

Ser Phe Lys Gly Ser Val Asp Ala Phe His Val Asn Thr Val Asp Thr  
275 280 285

Thr Gly Ala Gly Asp Ser Phe Val Gly Ala Leu Leu Ala Lys Ile Val  
290 295 300

Asp Asp Gln Ser Ile Leu Glu Asp Glu Pro Arg Leu Arg Glu Val Leu  
305 310 315 320

Lys Phe Ala Asn Ala Cys Gly Ala Ile Thr Thr Thr Gln Lys Gly Ala  
325 330 335

Ile Pro Ala Leu Pro Lys Glu Glu Ala Ala Leu Lys Leu Ile Lys Gly  
340 345 350

Gly Ser  
354

<210> 9  
<211> 1736  
<212> DNA  
<213> Glycine max

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tacatcatag taactcaaaa actagaaatc actgaaagtt ctttcgatta gcttccgaac 180  
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ttcctgcaac aggacctgtt gatgttgaaa ggtaacaagc aaagctcttc ttgagcttct 540  
cgtttgata ggttggaat gtttgcttgt aaagggactc aaatccacc tctgatattg 600  
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<210> 10  
 <211> 256  
 <212> PRT  
 <213> Glycine max

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<400> 10
Leu Val Phe Phe Gly Val Val Val Gly Ile His Leu Gly Leu Leu Val
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Gln Glu Lys Arg Gly Arg Ile Arg Ser Ile Leu Leu Gln Phe Lys Ser
      20             25             30

Asn Phe Gln Thr Met Ala Ser Ser Thr Asn Ala Leu Pro Pro Thr Gly
      35             40             45

Asn Gly Leu Ile Val Ser Phe Gly Glu Met Leu Ile Asp Phe Val Pro
      50             55             60

Thr Val Ser Gly Val Ser Leu Ala Glu Ala Pro Gly Phe Leu Lys Ala
      65             70             75             80

Pro Gly Gly Ala Pro Ala Asn Val Ala Ile Ala Val Ala Arg Leu Gly
      85             90             95

Gly Lys Ala Ala Phe Val Gly Lys Leu Gly Asp Asp Glu Phe Gly His
      100            105            110

Met Leu Ala Gly Ile Leu Lys Glu Asn Asp Val Arg Ser Asp Gly Ile
      115            120            125

Asn Phe Asp Gln Gly Ala Arg Thr Ala Leu Ala Phe Val Thr Leu Arg
      130            135            140

Ala Asp Gly Glu Arg Glu Phe Met Phe Tyr Arg Asn Pro Ser Ala Asp
      145            150            155            160

Met Leu Leu Thr Pro Glu Asp Leu Asn Leu Glu Leu Ile Arg Ser Ala
      165            170            175

Lys Val Phe His Tyr Gly Ser Ile Ser Leu Ile Val Glu Pro Cys Arg
      180            185            190

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Ser Ala His Leu Lys Ala Met Glu Val Ala Arg Glu Ala Gly Cys Leu  
195 200 205

Leu Ser Tyr Asp Pro Asn Leu Arg Leu Pro Leu Trp Pro Ser Ala Glu  
210 215 220

Glu Ala Arg Gln Gln Ile Leu Ser Ile Trp Asp Lys Ala Asp Val Ile  
225 230 235 240

Lys Val Ser Asp Val Glu Leu Glu Phe Leu Thr Gly Ser Asp Leu Val  
245 250 255

<210> 11  
<211> 1348  
<212> DNA  
<213> Triticum aestivum

<400> 11

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cgcccctggc	ctcgtcgtct	ctttcggcga	gatgctgatc	gacttcgtgc	ctgacgttgc	180
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Cys	Ser	Tyr	Asp	Pro	Asn	Val	Arg	Leu	Pro	Leu	Trp	Pro	Ser	Ala	Gln
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Ala Leu Ala Phe Val Thr Leu Arg Ala Asp Gly Glu Arg Glu Phe Met  
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Phe Tyr Arg Asn Pro Ser Ala Asp Met Leu Leu Thr Pro Ala Glu Leu  
115 120 125  
Asn Leu Asp Leu Ile Arg Ser Ala Lys Val Phe His Tyr Gly Ser Ile  
130 135 140  
Ser Leu Ile Val Glu Pro Cys Arg Ala Ala His Met Lys Ala Met Glu  
145 150 155 160  
Val Ala Lys Glu Ala Gly Ala Leu Leu Ser Tyr Asp Pro Asn Leu Arg  
165 170 175  
Leu Pro Leu Trp Pro Ser Ala Glu Glu Ala Lys Lys Gln Ile Lys Ser  
180 185 190  
Ile Trp Asp Ser Ala Asp Val Ile Lys Val Ser Asp Val Glu Leu Glu  
195 200 205  
Phe Leu Thr Gly Ser Asn Lys Ile Asp Asp Glu Ser Ala Met Ser Leu  
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Trp His Pro Asn Leu Lys Leu Leu Leu Val Thr Leu Gly Glu Lys Gly  
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Cys Asn Tyr Tyr Thr Lys Lys Phe His Gly Thr Val Gly Gly Phe His  
245 250 255  
Val Lys Thr Val Asp Thr Thr Gly Ala Gly Asp Ser Phe Val Gly Ala  
260 265 270  
Leu Leu Thr Lys Ile Val Asp Asp Gln Thr Ile Leu Glu Asp Glu Ala  
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Arg Leu Lys Glu Val Leu Arg Phe Ser Cys Ala Cys Gly Ala Ile Thr  
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10004502-103001

Thr	Thr	Lys	Lys	Gly	Ala	Ile	Pro	Ala	Leu	Pro	Thr	Ala	Ser	Glu	Ala
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Leu	Thr	Leu	Leu	Lys	Gly	Gly	Ala
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